

Product Information

Benchmaster Positioners, Turning Rolls, and "Add-On" Components

- Systems for engineered savings
- Precision & standard models
- Several weight capacities
- Interchangeable components
- Basic or advanced controls

Introduction

Jetline's improved package system approach to benchtop welding applications is specifically designed and engineered to save time and money on an endless variety of part requirements. All components in the system are quickly interchangeable to minimize downtime between set-ups. There are no excessive costs because you buy only the components you need and new components can be added to them at any time. The special capabilities of the Benchmaster system produce top quality circumferential welds faster and more efficiently to help you keep production moving.

Jetline's Add-on Welding System

Benchmaster positioners are available with weight capacities from 75 lb (34 kg) to 500 lb (227 kg).

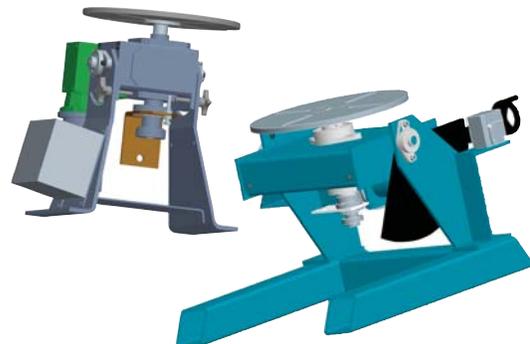
A wide variety of components are available to design the system for your needs. They include:

- 1016A Precision Cross Slide
- Pivoting Torch Positioner
- 4501A Torch Holder
- 4006MB Pneumatic Torch Actuator
- Tailstocks
- Brackets
- Base rails and tubes in many sizes
- Support structures/tables
- Shield-All Weld Viewer
- IS-300 Idler Stand
- Turning Roll End Stop to limit creep



Optional Items for Positioners

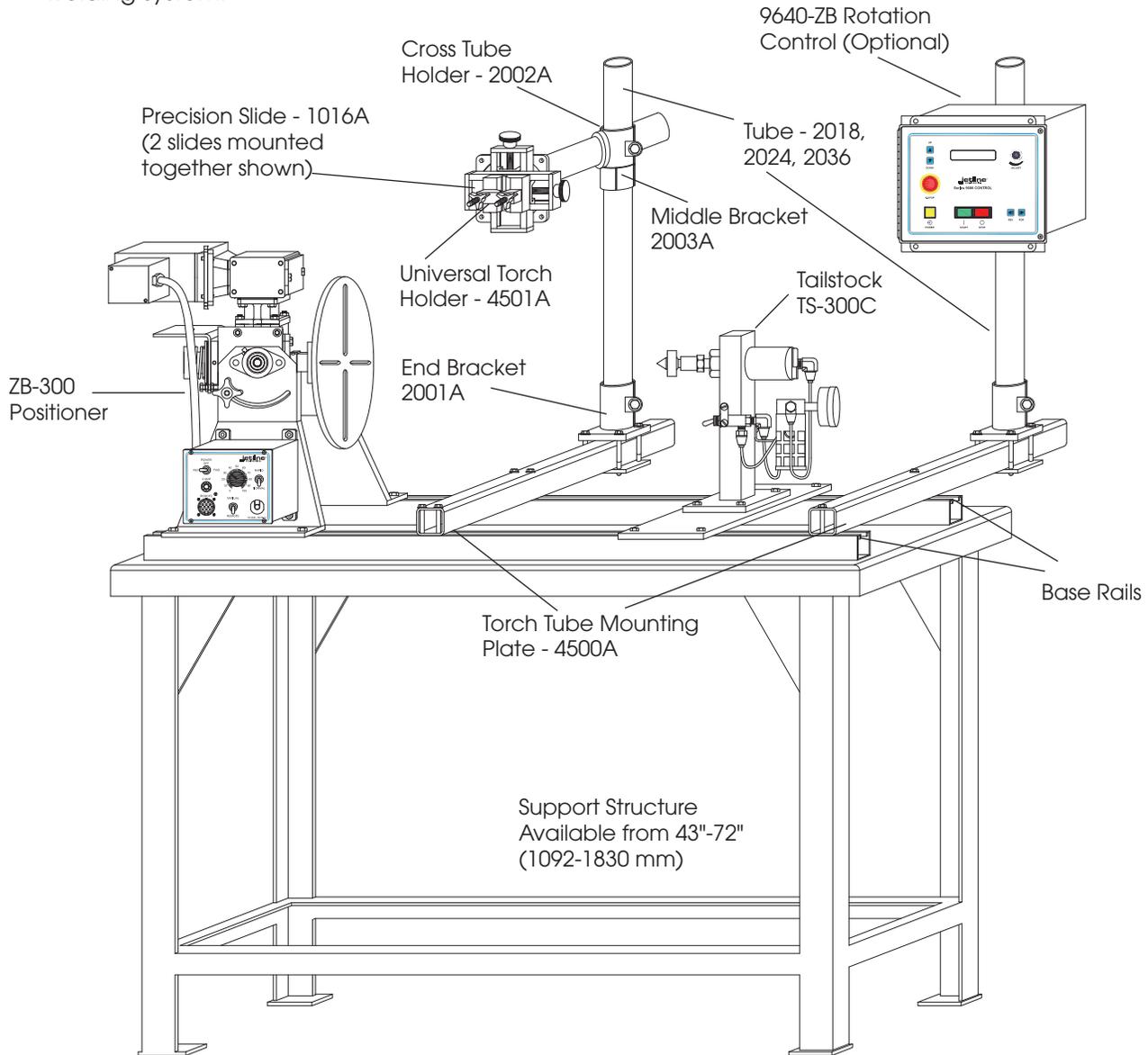
- 9640-ZB microprocessor control
- FS-4 Remote on/off foot switch
- FC-5A Variable speed foot control
- Ten-turn Potentiometer - replaces standard 1-turn pot
- 3-jaw chucks in several sizes
- Limit switch facility
- Tach-generator kit for speed holding accuracy better than $\pm 1\%$ of the maximum speed - available for the ZB-300, JP-500
- Motorized tilt for JP-500 positioners



BENCHMASTER SYSTEMS

Jetline's Add-On Welding System

Suitable for use with the ZB-300 positioners. See pages 6 and 7 for the components you need to complete your welding system.



Optional 9640-ZB Microprocessor Rotation Control

The 9640 control is designed for automatic sequencing of the welding arc, rotation, and wire if used. It can be linked to a suitable power supply for starting and stopping of the power supply's weld program. The control incorporates a solid state motor controller. It can be set for either 120V or 220V operation.

Speed control, start and stop delays, and the ability to switch the welding power supply on and off are provided. The 9640 control includes a feature which permits the diameter of the part being welded to be entered. When this is done, programming of the travel speed is made as surface speed.



BENCHMASTER SYSTEMS



**ZB-300 STANDARD POSITIONER
SHOWN WITH MCM-10 CONTROL**

Standard Model ZB-300 Specifications

Weight capacity:

- Faceplate vertical - 300 lb (136 kg) with CG 4" (100 mm) from faceplate
- Faceplate horizontal - 450 lb (204 kg) with CG 4" (100 mm) from faceplate

Table Tilt: Full tilt of 90°, flat to vertical

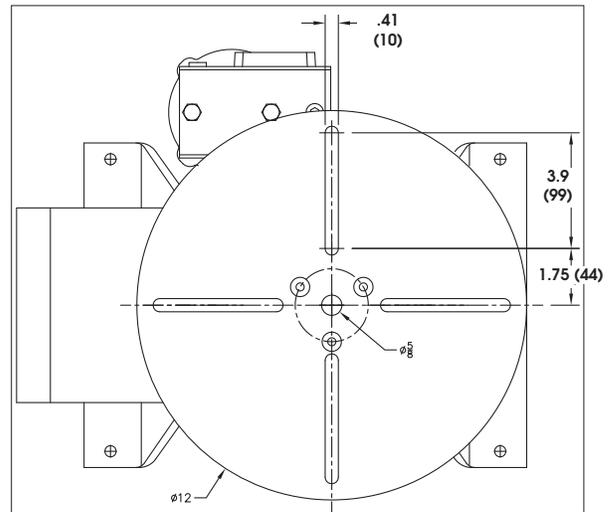
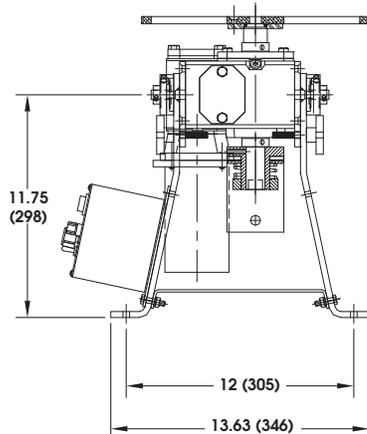
Faceplate: 12" (305 mm) with 4 tooling slots with a 5/8" (16 mm) diameter through-hole

Ground Current Conduction: 500 amps rotary standard

Control: MCM-10 motor control

Speed Ranges:

- ZB-300A 0.2 to 11 RPM
- ZB-300B 0.07 to 3.6 RPM
- ZB-300C 0.4 to 24 RPM
- Other speeds: Consult factory
- Speed holding accuracy is $\pm 2\%$ of rated speed



ZB-300 FACEPLATE

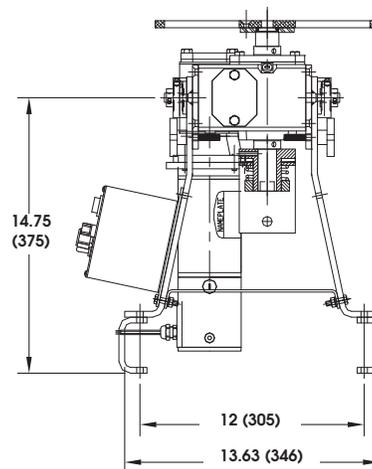
Precision Model ZB-300XC Specifications

Specifications for the precision model are the same as for the standard model except as below.

Control: 9640-0 microprocessor control and MCM-3 precision motor control incorporating a tach-generator feedback motor are standard.

Speed Ranges:

- ZB-300XC-12 0.024 to 12 RPM
- ZB-300XC-16 0.03 to 16 RPM
- ZB-300XC-24 0.04 to 24 RPM
- ZB-300XC-32 0.06 to 32 RPM
- Other speeds: Consult factory
- Speed holding accuracy is $\pm 0.1\%$ of rated speed



BENCHMASTER SYSTEMS



ZB-75ACA BENCHMASTER POSITIONER



ZB-75DCA or 75DCB

Model ZB-75 Specifications

Weight capacity:

- Faceplate vertical - 75 lb (34 kg) with CG 4" (100 mm) from faceplate
- Faceplate horizontal - 100 lb (45 kg) with CG 4" (100 mm) from faceplate

Table Tilt: Full tilt of 90°, flat to vertical

Faceplate: 8" (203 mm) with 4 tooling slots

Ground Current Conduction: 300 amps rotary ground standard

Control:

- Travel speed settings through a 1-Turn Potentiometer
- Variable Speed Foot Control standard on model ZB-75ACA
- On/Off foot switch or variable speed foot switch optional on models ZB-75DCA and ZB-75DCB

Speed Ranges:

- ZB-75ACA 0.5 TO 7.5 RPM
- ZB-75DCA 0.3 to 10 RPM
- ZB-75DCB 0.1 to 3.2 RPM

Weight: 28 lb (13 kg)



JP-500 BENCHMASTER POSITIONER
Shown with optional motorized tilt

Standard Model JP-500 Specifications

Weight capacity:

- Faceplate vertical - 500 lb (225 kg) with CG 4" (100 mm) from faceplate
- Faceplate horizontal - 1000 lb (450 kg) with CG 4" (100 mm) from faceplate

Table Tilt: Tilt of 105° flat to 15° past horizontal

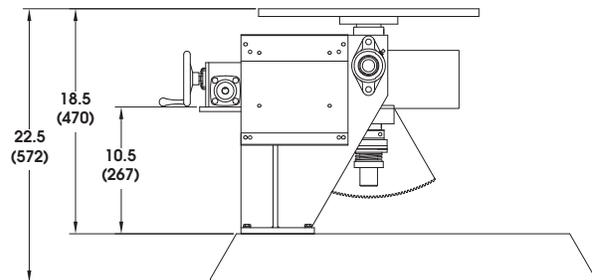
Faceplate: 18" (457 mm) with 4 tooling slots with a 5/8" (16 mm) diameter through-hole

Ground Current Conduction: 500 amps rotary standard

Control: Travel speed settings through a 1-Turn Potentiometer

Speed Ranges:

- JP-500A 0.07 to 3.6 RPM
- JP-500B 0.09 to 4.3 RPM
- JP-500C 0.11 to 5.4 RPM
- JP-500D 0.14 to 7.2 RPM
- Other speeds: Consult factory
- Speed holding accuracy is $\pm 2\%$ of rated speed



BENCHMASTER TURNING ROLLS

Benchmaster Turning Rolls

These inexpensive turning rolls add to the versatility of the Benchmaster Package. They are designed to be used with auxiliary components which may be assembled in a myriad of arrangements to suit your requirements.

Benchmaster turning rolls are designed for the many small welding applications that could be tying up large production equipment.

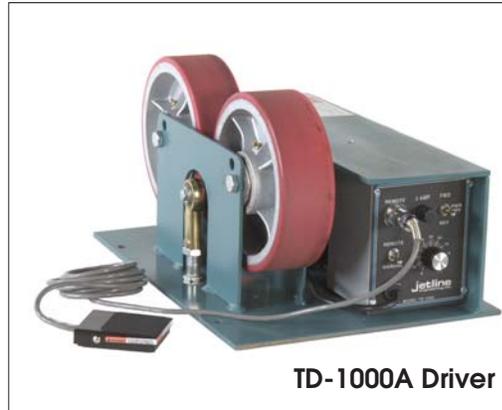
The TD-1000A driver has a weight capacity of 2000 lb (450 kg) and a turning capacity of 2000 lb (910 kg) when coupled with the TI-1000A idler. It provides a speed range of 3 to 65 ipm (77 to 1650 mm/min) with a part diameter capacity of 0.5" to 32" (13 to 812 mm).

Control Features

- Solid-state control with SCR feedback system
- Protected against high frequency
- Dynamic brake for instant stop
- Plug-in socket for remote foot control or external signal from sequence panel for automatic run-stop
- Remote foot switch - Run/Stop control

Optional Features and Accessories

- 220 volt 50 cycle operation in place of standard 115/1/60
- Several sequencing controls for automatic timing and sequencing of rotation



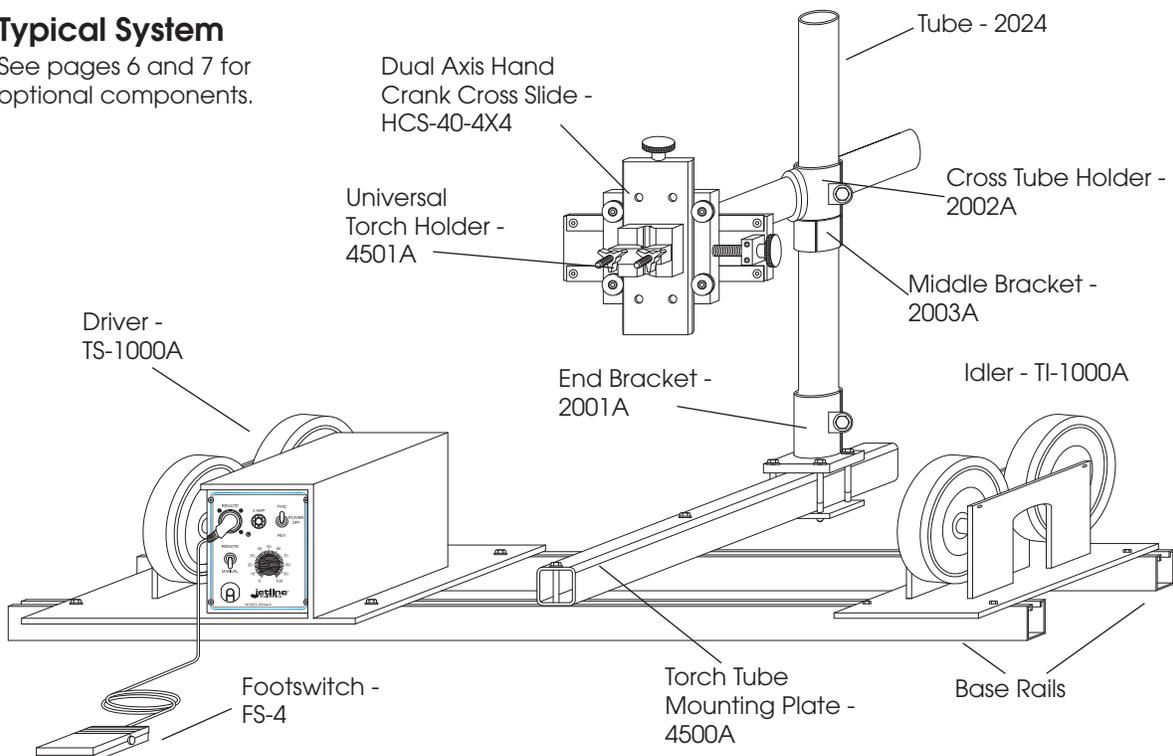
TD-1000A Driver



TI-1000A Idler

Typical System

See pages 6 and 7 for optional components.



BENCHMASTER ACCESSORIES



1016A Precision Slide

Accurate and fine adjustment up to 1½" (38 mm) travel. Two may be connected together for horizontal and vertical adjustment.



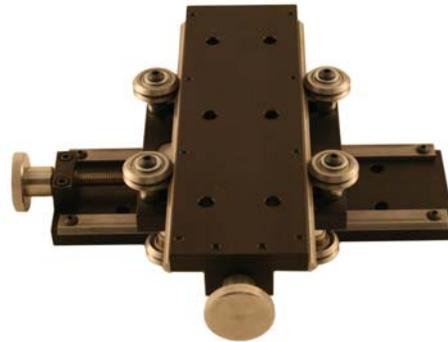
HCS-40-4 Single Axis Hand Crank Slide

Accurate and fine adjustment up to 4" (100 mm) travel. These are designed for a weight carrying capacity of 40 lb (18 kg).



For Torch Positioning

Two 1016A cross-slides are combined with a 4501A torch holder for precision positioning of the torch. Shown mounted to a 4503A pivoting torch positioner. This allows torch to be set in a number of positions. Provides 360° rotation and 180° swivel.



HCS-40-4X4 Dual Axis Hand Crank Slide

Two slides connected together for horizontal and vertical adjustment up to 4" x 4" (100 mm x 100 mm) travel.



2001A End Bracket

Mounts tube to base; mounts cross-slide to tube end.



2002A Cross Tube Holder

Connects two tubes in vertical and horizontal torch positioning



2003A Middle Bracket

Supports cross tube holder for 360° swivel.



Tube - 2018, 2024, 2036

Provides vertical and horizontal torch support

BENCHMASTER ACCESSORIES



TS-300C Tailstock

Weldment support; maintains part concentricity and provides up to 140 lb (64 kg) horizontal pressure. Includes live center, 2" (52 mm) stroke air cylinder and air regulation system.



FC-5A Foot Control

Remote On-Off switch with variable speed control.



FS-4 Foot Switch

Remote On-Off switch



6039 3-Jaw Chuck

Has 9" (230 mm) adjustment and includes adapter.



60314 3-Jaw Chuck

Has 14" (355 mm) adjustment and includes adapter.



6035 Universal 3-Jaw Chuck

Use to mount weldment or tooling to positioner; 5" (127 mm) adjustment.



WH-15-BM Shield-All Weld Viewer

Complete visibility of controls with eye protection against flash burns. Increases productivity and operator comfort. Includes mounting hardware.

Other accessories include:

- 4006MB Pneumatic Torch Actuator - provides 4" (101 mm) stroke controlled by manual two way air valve
- 4006EB Pneumatic Torch Actuator - provides 4" (101 mm) stroke controlled by electric solenoid valve through the 9640 circumferential control
- Brackets - mount controls, weld heads, track, etc.
- Base rails - pair. Provides common connection for components and torch support. Available in lengths from 43" to 72" (1092 to 1830 mm).
- Support structure/table - Available from 12" to 60" (305 to 1524 mm) with base rails.
- IS-300 Idler Stand - holds 1" to 8.5" (25.4 to 216 mm) diameter parts
- Turning Roll End Stop to limit creep

BENCHMASTER SYSTEM APPLICATIONS



Benchmaster GTAW System with ZB-300 positioner and tailstock, 9640 rotation control, ALC-401-6 arc length control, and CWF-50 cold wire feed.



Benchmaster GTAW System 9500 System Control, ALC-401-6 arc length control, and MO-150-5S mechanical oscillator. Controls are mounted on a moveable podium for easy access.



Benchmaster GTAW System with JP-500 positioner, 9640 rotation control, ALC-401-6 arc length control, and CWF-20 precision cold wire feed.

See Jetline price list for complete ordering information

Distributed by:

jetline[®]
engineering
An Illinois Tool Works Company

15 Goodyear St., Irvine, California 92618 USA
Tel: (949) 951-1515 • Fax: (949) 951-9237 • E-mail: sales@jetline.com

Web Page: www.jetline.com • www.cyclomatic.com